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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/488,286	01/20/2000	Tetsujiro Kondo	450100-02293	4230

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EXAMINER

VO, TUNG T

ART UNIT PAPER NUMBER

2613

DATE MAILED: 03/19/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/488,286

Applicant(s)

KONDO ET AL. 

Examiner

Tung T. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,6,8,10,13,15,17,20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 6, 8, 10, 13, 15, 17, 20 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Prosecution Application

1. The request filed on 02-07-03 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/488,286 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 6, 8, 10, 13, 15, 17, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al. (US 5,364,270) in view of Loughheed et al. (US 5,686,690) as set forth in the previous Office Action, paper No. 13.

Re claims 1, 4, 6, 8, 10, 13, 15, 17, 20 and 22, Aoyama discloses an information processing apparatus (fig. 1) for processing the video information corresponding with the motion information to drive the object in accordance with the motion information as set forth in the previous Office Action, paper No. 13.

Aoyama further teaches the storage medium for storing the video information and the motion information associated with the video information before displaying on the displayed (col. 1, lines 58-62; col. 2, lines 1-3; e.g. the storage medium stores the video image before

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displaying so the storage medium is delaying the video information (video frame)); wherein the predetermined motion unit perform the motion information based upon the stored video information (col. 2, lines 3-6). Aoyama further teaches a display device (3 of fig. 1) to display video information (video image signal) (col. 4, lines 22-24), and the control signal to contain a plurality of components (col. 5, lines 11-26).

Moreover, Aoyama suggests the predetermined motion information that has been calculated or estimated in advance and then converted into oil pressure control information to drive a servomechanism (col. 5, lines 14-18), where the motions are measured or calculated in the images (col. 5, lines 14-15), synchronism with motion in the images. Although Aoyama does not particularly teach a detector for detecting one motion vector for each block composed a plurality of pixels at predetermined position within a frame as specified in claims 1, 3, and 9.

However, Loughheed discloses a change detection (110 of fig. 9) to detect one motion vector for each block composed a plurality of pixels at predetermined position within a frame (col. 15, lines 14-44), where a summation (112 of fig. 1) computes the difference in intensity between pixels in the current frame and the preceding frame to produce one motion.

Taking the teachings of Loughheed and Aoyama as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the change detector (110 of fig. 9) of Loughheed with the information read means (2 of fig. 1) of Aoyama to detect the motion related-signal in accordance with an image signal. Doing so would allow the processing apparatus to accurately detect motion information that would be sent to the servomechanism to move in various motions so that the user/player would enjoy the image in a real time.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 4, 6, 8, 10, 13, 15, 17, 20 and 22 have been considered but they are not persuasive.

In remark, the applicant argued that Aoyama and Loughheed fail to obviate the present invention, page 4.

In response, the examiner respectfully disagrees with the applicant. It is submitted that Aoyama teaches the storage medium is considered as a delay unit for storing the display of image signal to cause of delaying the display of a frame of the image signal by the display device until the corresponding motion control signal is generated (2, 3, 4 of fig. 1; e.g. the storage medium for delaying the video information until the motion means (4) has done the calculation of motion information; see also col. 1 line 58 through col. 1, line 6), wherein the motion information used to drive the capsule moving device (18 of fig. 2).

Moreover, Loughheed teaches a frame buffer (120 or 122 of fig. 9) for delaying or buffering the video frame of the video image signal before displaying on the display (30 of fig. 6) and the detector (114 of fig. 9) detects the motion vectors for the plurality of predetermined block within each frame and suggests the motion vectors used to drive the angular encoder (22 of fig. 9).

Since Aoyama and Loughheed teach the delay unit and display device used to process the video information corresponding with the motion information to drive the object in accordance with the motion information in the information processing apparatus, so they both are combinable to make obvious the claimed invention.

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In further response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

TUNG T. VO
PATENT EXAMINER

Tung T. Vo
Examiner
Art Unit 2613

T.Vo
March 14, 2003